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Governing emotions: citizenship, neuroscience and the education of youth

Elizabeth A Gagen

Schools are one of many sites to incorporate emotional literacy into their institutional agenda in recent years. Alongside broader changes in social, economic and political practice, schools have welcomed emotional education as a necessary element in the training of young people. In 2007, the government introduced Social and Emotional Aspects of Learning (SEAL) to secondary schools across England and Wales. The aim of the programme is to integrate emotional literacy into the secondary school curriculum, following the successful implementation of SEAL at primary level. In this paper, I argue that rather than being about the encouragement of happy, content or well-adjusted individuals, it is, more crucially, about a new form of citizenship. Forms of self-government predicated on emotional management have been made possible since the widespread popularisation of neuroscientific understandings of emotions. By tracing the transposition of these ideas from popular brain science to education policy and finally to the curricula delivered via SEAL, I suggest that educating emotions has become central to the way citizenship is currently being defined for young people. By bringing together recent insights from geographies of education, emotion and citizenship, I suggest that the relationship between governmentality, education and youth requires closer critical attention.

Key words citizenship; emotions; education; youth; governmentality; neuroscience

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Introduction

Phrases like ‘emotional intelligence’ and ‘emotional literacy’ encapsulate calls for an increase in self-knowledge. But such phrases can be taken as addressing more than the private side of life ... The idea of emotional literacy can be extended into the public sphere, so that we can envision a citizenry wanting to engage with politics in a feeling-based way, secure in the knowledge that they will still be coherent. (Samuels 2001, 3)

We all know that academic learning alone is not going to produce healthy, happy, well rounded individuals or be enough later in life when young people want to start a career. Employers these days are looking for bright, able individuals who are passionate about what they do, who, as well as having a good understanding of their job, can work in a team, can find creative solutions to problems and to treat others with respect ... These are skills that will stand pupils in good stead, not just for getting a good job, but throughout their later life as responsible citizens and in their personal relationship with others too. (Brennan 2007, np)

In 2007, the government held a Headteachers Conference to launch the extension of its programme on Social and Emotional Aspects of Learning (SEAL) to secondary schools in England and Wales. The programme is designed to integrate emotional literacy into

the secondary school curriculum. A similar programme had been successfully rolled out across primary schools two years earlier and the conference in 2007 saw the extension of emotional literacy throughout the compulsory state education system. The catapulting of emotions into the curriculum as a skill that schools are charged with teaching is a new and noteworthy feature of state education in England and Wales. As Boler (1999) argues, emotions have always existed in education, albeit unacknowledged, there to be tamed and suppressed. With the introduction of SEAL into the mainstream curriculum, we see the explicit prioritisation of emotions as not simply necessary to wellbeing and a strategic advantage to learning, but, more importantly, as a fundamental constituent of citizenly identity. I pursue this connection here by arguing that educating emotions through neuroscientific technologies has become central to the way citizenship is currently defined for young people and that this in turn has profound implications for our critical understandings of the relationship between governmentality, education and youth.

The complicity of education and citizenship is not new. Since the establishment of mass education in the late nineteenth century there has been a concerted effort on the part of western governments to use

educational spaces to discipline the young in the ways of modern citizenship (Green 1990). Indeed, geography itself has often been at the centre of the project to create a citizenly consciousness, be that through geographical education and Empire-building (Maddrell 1996 1998; Ploszajska 1996 1998), through visual cultures of landscape and belonging (Matless 1995 1996 1998) or in the coming together of geographical understandings of nature and rurality in nation-building projects (Gruffudd 1996).

For much of the nineteenth and twentieth century, schooling focused on creating a citizenly consciousness, disciplining bodies and reproducing strategic subjectivities that served the state. In the context of nation-building, citizenship education denotes not only the knowledge and power invested in political philosophies and ideologies, but equally, the requirement of physical health and well being. Indeed, physical health education has played a central role in the complicity of schools in nation-building (Gagen 2004 2005; Kirk 1998; Rawlins 2008). More recently, the project of educating citizens has developed from an oblique agenda to an explicit programme with the introduction of formal citizenship classes in English schools since 2002 (Faulks 2006). Geographers have taken this up with interest, examining the implementation of citizenship at primary levels (Brown 2000), the discursive construction of citizen identities (Pykett 2007 2009), the relationship between religious identity and citizenship (Hemming 2011) and, more broadly, the way in which neoliberalism is reshaping the contours of citizenship in education (Mitchell 2003 2006). While the task of constructing citizen identities extends beyond education (e.g. Mills 2013, on citizenship and the Scout Movement), the school remains an important site in the establishment and maintenance of citizenly identities (Collins and Coleman 2008). In the pursuit of a governable body politic, schools have played a prominent role in establishing rules, norms and behaviours that support the social reproduction of citizenship (Marston and Mitchell 2004). As Staeheli suggests,

[a]s a site of citizenship formation, the school can be thought of as an aggregation of the aspirations, ideals, values, and instrumentalities wielded by the gamut of social and political agents in society, who draw on different sources of power as they attempt to mould citizens capable of functioning in particular ways. (2010, 395)

In positioning schools as a technology through which practices of governmentality operate, I reiterate an established connection between education and the disciplinary strategies identified by Foucault (Ball 1990).

Yet, as Staeheli and Hammett underscore, states do not simply pursue a set of behaviours or qualities that belong to a good citizen, 'they also seek to shape and

maintain a political community capable of being governed' (2010, 669; also see Staeheli *et al.* 2012). It is here that the concept of governmentality begins to animate the role of schooling in producing citizens. As Huxley explains, governmentality is

a generalized power that seeks to fashion and guide the bodily comportments and inward states of others and of the self; a form of action on the actions and capacities of the self and of others. In this sense, government is the form of power 'by which, in our culture, human beings are made subjects'. (2007, 187, citing Foucault)

Schools do not simply drill behaviour, they instil skills for the long-term practice of self-government. Education, and citizenship education in particular, has refocused the practice of government onto the very skills that define us as autonomous individuals. As Kevin Ryan argues, children are increasingly 'being governed, not simply through schooling and associated forms of training and instruction, but through their freedom to choose as individuals' (2010, 764). Building on this, I suggest here that recent changes in the way citizenship skills are conceptualised in English schools need to be carefully reconsidered. Specifically, I suggest that the introduction of a dedicated curriculum on emotional literacy marks a shift in the way the long-term management of subjectivity is imagined.

In order to explore this in detail, the paper examines the implementation of a recent programme, SEAL, in English secondary schools. As part of a wider embrace of emotional intelligence in both public and private institutions, schools have been charged with constructing subjects with greater emotional self-awareness and with the capacity to regulate their emotional behaviour using neuroscientific technologies. My purpose here is threefold: first, to examine how citizenship is being transformed from a subjectivity performing specific civic duties to a subjectivity requiring the close management of *neurologically* defined emotional behaviour; second, to examine neuroscience as the technology through which such changes take place; and third, to examine the school as the site through which these technologies are practised. In the following paper, I develop these aims in two broad sections. In the first part of the paper, I examine the context of the recent changes in emotional education, looking at the shifting locus of governmentality from targeting minds and bodies to insinuating itself at the molecular scale of subjectivity as it is newly rendered by neuroscience. I then review some of the recent critiques of the relationship between emotions and education before placing this project in the emerging fields of geographies of education and the wider emotional turn in geography. In the second part of the paper, I turn to the SEAL programme itself, looking first at the connection between emotions, citizenship and neuroscience. To do this I sketch out

the transposition of recent findings from neuroscience as they are written into the SEAL curriculum. I then offer three examples of how emotional intelligence is reformulating the requirements of citizenship by drawing on specific lessons from the SEAL curriculum. These include lessons on self-awareness, anger management and impulse control.

In order to trace the flow of ideas from popular science and neuroscience to education policy and finally to the curricula delivered in schools, I follow a genealogical approach to the production of knowledge and the construction of subjectivity. This takes up Mitchell's (2006) call for more 'bottom up' excavations of the effects of new forms of governmentality. She writes that while the theoretical exposition of political rationalities is useful, it does not

adequately engage with *how* and *in what ways* people are constituted and ruled as neoliberal subjects through the many technologies and assemblages of power so brilliantly outlined by theorists. (Mitchell 2006, 390; emphasis in original)

In response, I work here to trace the intellectual technologies derived from the neurosciences as they are translated into education policy and emerge in simpler but nevertheless operative forms in classroom curricula. Moreover, by following a genealogical approach to the constitution of educational subjectivities, the geographical dimension becomes clearer. Elsewhere I have argued that in order to better understand the shifting vitalities through which subjects are shaped by psychological knowledge, we have to go beyond the texts and documents where ideas first take hold and examine the sites where knowledge is spatialised (Gagen 2006; Gagen and Linehan 2006). I develop this here by drawing on two scales of knowledge production. First, I draw on a set of published sources, including popular psychology, neuroscientific texts and the SEAL curriculum material published by the Department for Education and Skills. Second, I draw on data gathered from a study of the implementation of SEAL in a Local Education Authority in the North of England. Over three years, between 2008 and 2011, I attended training sessions and participated in workshops provided by the LEA to secondary teachers in the local area who were responsible for delivering SEAL. From this, I gathered lesson plans and resource sheets that were used by teachers to deliver the SEAL curriculum. Before examining this material more closely, I look first at the relationship between emotions and governmentality.

Governing emotions

Over recent years, scholarly attention to emotions has morphed from a singularly psychobiological concern to

broadly constructivist accounts of emotion, to be displaced by a preoccupation with the ontological nature of affect (Greco and Stenner 2004). Geographic research, too, has come some way since Anderson and Smith's (2001) editorial in which they lament the devaluing of emotions and their segregation from mainstream research. Emotional geographies is a thriving subfield with attention directed as much to the socio-spatial mediation of emotions as to its embodied experience (see Davidson *et al.* 2005; Gregg and Seigworth 2011; Smith *et al.* 2009; Thrift 2007).

In focusing on the way emotional competency is becoming the new benchmark by which young people are marked as successful subjects, I build on this diverse work. From its roots in the constructivist work of the 1980s and 1990s, which saw emotions as something that could be manipulated and managed as part of an emotional economy (e.g. Hochschild 1983), scholars have worked hard to unpack and politicise the role of emotions in creating and maintaining social inequalities (e.g. Lasch-Quinn 2001). New thinking about emotions, including that which insists we must confront the affective register of existence, has advanced our understanding of what emotions do. Moreover, geographers have been keen to explore the relocation of subjectivity to molecular and neurochemical processes (Korf 2008; McCormack 2007). While much of this work on molecular affects is interested in the ontological nature of the neural, I pursue a complementary line of inquiry here. Following writers like Ahmed (2004), I ask: what does this new way of understanding neural emotions do in particular social contexts? Specifically, how has emotional competence come to assume a more central role in the constitution of successful citizenship? How have disciplinary strategies shifted to target emotional health? And what effect does the neural location of emotional management have on practices of education? In order to explore the relationship between emotions and governmentality, I turn to the Foucault-inspired work of Nikolas Rose (1998 1999 2007), and ask: how are emotions being cultivated, demanded and rewarded in contemporary education policy and to what ends?

The concern with emotional life in education and elsewhere is not an abrupt departure (see also Boler 1999). Over the course of the twentieth century, Rose (1999) argues that the western subject has become increasingly psychologised. Elaborating on Foucault, he argues that the psychological sciences have been central to the project of transforming what we understand as 'ourselves' into governable citizens. Features of selfhood that we take to be internal – values like autonomy, self-realisation and self-actualisation – are the result of psychoscientific rationalities rather than psychobiological features. Indeed, it is unimaginable that we could perceive ourselves as modern individuals without the language and structures inherited from

psychology. According to Rose, contemporary government 'operates through the delicate and minute infiltration of the ambitions of regulation into the very interior of our existence and experience as subjects' (1999, 11).

While this process of psychologisation developed gradually throughout the twentieth century, I suggest here that the more recent embrace of emotions is a related but distinctive development in psychology's production of citizen subjectivities. No longer content with autonomous liberal individuals, governance now requires emotional competence as a fundamental feature of governability. While mass education has always been about governability – the training of conduct, the guiding of behaviour, the regulation of comportment and the internalisation of self-government – until the late twentieth century this tended to focus on Enlightenment concepts of an external body and internal mind, what Davis calls 'docile bodies and disembodied minds' (1995, 525). My suggestion here is that the recent implementation of a curriculum of emotional education in English schools introduces a new element to the requirements of governability – what could be called the 'emotionalisation' of conduct. More importantly, this form of conduct is located in the neurons and synapses of the brain.

The transformation of governability from its focus on a psychological sense of self (thoughts, ambitions, values) to a newly specified neural location has transformed the constitution of the citizen subject. Moreover, the neurochemical foundation of subjectivity has specific implications for how we think about producing subjects through education. As I argue later in the paper, this is evident in the increasing presence of neuroscientific rationalities in curricula on emotional intelligence. I suggest here that the emotionalisation of conduct is part of a larger transformation of our ability and ambition to manage the conduct of citizens that Rose (2007) terms 'vital politics'. Tracing the emergence of this target of governance, Rose argues that the vital politics of the twenty-first century

is concerned with our growing capacities to control, manage, engineer, reshape, and modulate the very vital capacities of human beings as living creatures. It is ... a politics of 'life itself'. (2007, 3)

One of the features of this new vital politics is that it is increasingly concerned with a new scale of subjectivity – the molecular:

It is now at the molecular level that human life is understood, at the molecular level that its processes can be anatomized, and at the molecular level that life can now be engineered. At this level, it seems, there is nothing mystical or incomprehensible about our vitality – anything and everything appears, in principle, to be intelligible, and hence to be open to calculated interventions in the service of

our desires about the kinds of people we want ourselves and our children to be. (Rose 2007, 4)

I suggest here that emotional education can be thought of as part of this new vital politics. What will become clear later in the paper is that the teaching of emotional intelligence works on a new component of subjectivity – one that is emotional and frequently neurological – so as to begin to shape emotionality as a vital feature of future civil life.

Geographies of education and emotions

In their recent paper, Holloway *et al.* (2010) challenge Hanson Thiem's (2009) claim that geographies of education have been too inward-looking, with its focus on variation in education provision rather than on the role of education in social reproduction. While some geographical work on education has been limited to narrow descriptions of inequality and close studies of education reform, Holloway *et al.* (2010) demonstrate that there is significant work already established on geographies of children, youth and families that points towards a more critical perspective on education. Examples include: the reproduction of social difference in school spaces, including disability (Holt 2007), class (Reay 2007), religious identities (Hemming 2011; Valins 2003) and gender and race (Hyams 2000; Thomas 2011); how education shapes different scales of identity and citizenship (Gagen 2004; Kong 2005); alternative spaces of education (Krafft 2006); different extensions of education, e.g. wrap-around care, pre-school/nursery provision (Smith and Barker 2000); school design (Parnell and Patsarika 2011); and geographical studies of both formal and informal curricula, including ICT (Valentine *et al.* 2002), physical education (Evans 2006; Gagen 2006) and the place of sexual identity in school curricula (Collins 2006).

Since Holloway *et al.* (2010) made these claims there has been an upsurge of research on geographies of education (see Holloway *et al.* 2011; Holloway and Jöns 2012). To date, however, there has been relatively little focus on the implications of recent advances in emotional education (for a notable exception, see Harden 2012). While some ground has been gained in connecting changes in education policy with cultures of emotions (e.g. Brown 2011; Hartley 2004); others have sought to apply theories of affect and emotion to the context of schools (Kenway and Youdell 2011). Building on this, my goal here is to insert into these debates an appreciation of the increasing emphasis on emotional education, which is transforming pathways to citizenship and defining the way behaviour is mapped onto subjectivities more broadly.

The emotionalisation of education has not gone unnoticed outside geography. Where it has been

subject to analysis, however, the perspective has frequently been circumspect. Boler (1999), for example, observes the emerging emotional intelligence agenda in the USA with some caution, suggesting that its warm welcome in education serves the needs of capitalism by internalising neoliberal rules. In the context of a wider critique of the emotional direction of cultural politics, authors like Furedi (2004), Illouz (2008) and Moskowitz (2001) question the effect this has had on the standing of subjectivity. With the ascent of what, after Nolan (1998), he terms therapeutic culture, Furedi argues that it has

helped construct a diminished sense of self that characteristically suffers from an emotional deficit and possesses a permanent consciousness of vulnerability. (2004, 21)

Critical of a culture of emotionalism in which the human condition is *only* seen in terms of its feelings, he and others are sceptical about the extent to which this improves the social condition. Likewise, critics of therapeutic culture in the USA argue that this ethos has ultimately undermined the significance of the social in favour of the individual (Elshtain 1986; Nolan 1998).

Instead, cultural standards for judgment, guideposts for actions, understandings of oneself, and the tools for navigating through social life are now likely to be rooted in the self. (Nolan 1998, 3)

More specifically, Nolan traces the meteoric rise of self-esteem as the primary goal of American educators. Where knowledge and understanding used to be the cornerstones of education, emotional literacy and self-esteem are now the tools by which American children will become educated subjects.

In the UK, the trend towards emotionalism in the education system, while a few decades behind the USA, is now evident. The introduction of SEAL as a core component of the curriculum is part of a wider move towards therapeutic education that has been subject to similar critique. Concerned about the construction of young learners as inherently vulnerable, Ecclestone and Hayes (2009) argue that the current preoccupation with emotional education is transforming children and young people into anxious and inward-looking individuals rather than aspiring and resilient learners (also see Ecclestone 2007). More specifically, Gillies (2011) argues that the emotional literacy agenda does huge disservice to the complex, fraught and socially embedded emotions that many students struggle with in their everyday lives. To this end, they join Furedi (2004) and Nolan (1998) in questioning the value of the emotional turn in casting the self as the sun around which the rest of society must orbit. Doing much to develop the critique established earlier by Elshtain (1986), they suggest that rather than creating better adjusted, more confident citizens, this philosophy undermines the very

notion of the social and replaces it with a neoliberal, but nevertheless, *feeling* individual. As Elshtain argues,

all points seem to revolve around the individual's subjective feelings – whether frustration, anxiety, stress, fulfilment. The citizen recedes; the therapeutic self prevails. (1986, 92)

What I suggest here, however, is that the elevation of emotionality in education policy does not necessarily conflict with a commitment to citizenship. Using the concept of governmentality to rethink emotional intelligence as an aspect of conduct, programmes like SEAL can be better thought of as reconfiguring citizenship rather than dismantling it. My concern is what the new emotional curriculum is doing to insinuate emotional competence into young subjectivities for the purpose of creating a more effective and governable future citizen. I turn now to examine in detail the emotional education policy recently adopted by schools.

Emotions, citizenship and neuroscience in the SEAL curriculum

Citizenship has been taught as a statutory subject in the English National Curriculum since 2002. Following the publication of the Crick Report in 1998 and the subsequent Government Order to implement the findings, secondary schools have delivered a standardised curriculum on citizenship. Central to the new provision was a desire to address two perceived problems among the nation's young people: political apathy and antisocial behaviour (Faulks 2006). It was hoped that citizenship education would go some way towards engaging young people in community responsibility and democratic participation. While some emphasis was placed on skills like debate and critical thinking, there remained a strong emphasis on knowledge. By understanding political and legal processes, democratic institutions and economic systems, young people would be given renewed interest and personal investment in the system of governance. The principal aim of citizenship education was political literacy.

I suggest here that the implementation of SEAL in secondary schools marks a further development within the citizenship agenda. While it shares the same concern for encouraging civic responsibility and participation, the goals of SEAL are broader and its targets distinct. To produce governable citizens, SEAL cultivates not *political* but *emotional* literacy. At the same time, the emphasis shifts resolutely away from knowledge-based education to skills and behaviour. In particular, I argue here that by drawing from a range of psychological literature and neuroscience that emerged in the late 1990s and early 2000s, the curriculum focuses attention on the neurological constitution of subjectivity in a way that supports Rose's

(2007) conjecture that the government of individuals is increasingly dependent on vitalities of living. The emotional literacy agenda in education builds on a foundation of popular neuroscience to reimagine the subjects of education as fundamentally neurochemical individuals. Before moving on to the application of SEAL in schools, I briefly explore the ambitions of the programme and the psychological context from which it draws.

After the successful implementation of primary SEAL in 2005, the then Department for Education and Skills (DfES) launched its secondary programme in 2007.¹ By 2010, 90 per cent of primary schools and 70 per cent of secondary schools in England were delivering a SEAL programme (Humphrey *et al.* 2010). The goal of the SEAL programme is to teach social and emotional skills in three contexts: in discrete lessons specifically on social and emotional skills; by developing a school climate that encourages and consolidates those skills; and by incorporating social and emotional literacy in subject-specific lessons (DfES 2007a). Social and emotional skills are defined in the SEAL guidance material as

the skills of making positive relationships with other people, of understanding and managing ourselves and our own emotions, thoughts and behaviours. (DfES 2007a, 4)

This is then divided into five skill sets that form the foundations of the SEAL curriculum resources offered to schools as the basis of their lesson plans. These include 'self-awareness', 'managing feelings', 'motivation', 'empathy' and 'social skills' (DfES 2007a, 6).

The shift towards emotional education is not without precedent. Elements of these skills have been present in the curriculum for some years, delivered, for example, via Personal Social and Health Education (PSHE). What is new, however, is the amplified significance placed on these skills, their reconstitution in citizenship training and, most tellingly, their explicit foundation in new neuroscientific literature on emotions. The SEAL programme is driven throughout by the emerging literature from popular neuroscience. The common reference point throughout the SEAL literature is Daniel Goleman's (1995) popular science book *Emotional intelligence*. Building on earlier work on emotional literacy developed in the 1980s (Gardner 1993; Salovey and Mayer 1990), Goleman's book popularised the term 'emotional intelligence' and argued that emotional aptitude is a key determinant of success later in life.

In order to demonstrate the neuroscientific reasoning behind SEAL, I briefly review the basic premises drawn from brain science. The ideas are necessarily simplified, as a result of both their translation from the original texts into Goleman's (1995) thesis on emotional intelligence and their further diffusion into

teaching documents. The central tenet of the literature is that emotions play a much more important role in how we think and act, to the extent that intelligence itself – previously considered a cognitive and rational quality – is now being rethought as a quality that is fundamentally determined by emotional faculties. Emotions have been elevated over recent years to replace what were traditionally considered 'higher' mental functions, and neuroscientists now argue that high-functioning individuals demonstrate better social and emotional skills rather than simply higher cognitive function (Goleman 1995). For the purposes of my argument here, I want to underscore the importance that writers place on the neurological foundation of emotional life. I suggest that the SEAL curriculum is consistent with the 'somaticisation' of life and marks a change from previous interventions in psychological life that dominated behaviour management over the last century (Rose 2007). Consequently, the desire to educate emotions via neurology has become a vital part of education.

Many neuroscientists have contributed to the reconstitution of subjectivity as essentially and materially emotional; however, LeDoux (1996 2002) and Damasio (1994 1999) stand out as writers who are frequently cited by the SEAL programme materials and are therefore directly rather than impressionistically traceable. This is likely due to the fact that Goleman builds his case for emotional intelligence in large part from their findings.² Citing work by Joseph LeDoux (1992 1993 1994) and Antonio Damasio (1994), he describes how mental processes previously believed to be controlled by the neocortex – including cognitive responses and decision making – are in fact controlled by the amygdala, the emotional centre of the brain. Goleman summarises the field by arguing that this work 'is supported by a growing body of converging evidence from a variety of neuroscientists who are steadily laying bare the neural underpinnings of emotions' (1995, 312).

In her opening address to the Headteachers Conference that launched secondary SEAL, Katherine Weare, author of the initial government report that established the need for a programme on emotional literacy, made clear her support for neuroscientific understandings of emotional conduct, describing the brain as 'an emotional organ' (Weare 2007). Her spotlight on Goleman and other brain scientists working on emotions established important links between education policy and neuroscience and led directly to the establishment of the SEAL programme materials (Weare 2003). The materials are punctuated by references to Damasio, LeDoux and Goleman, and supported by diagrams of the brain and detailed descriptions of what they term 'whole brain and body learning' (DfES 2007b, 95).

New developments in neuroscience are showing that emotion is fundamentally linked with how [the brain] processes information, and bringing about a new recognition of the central role emotion plays in the process of learning. (DfES 2007b, 95)

Echoing the findings from brain science, the SEAL materials state that

[r]ecent research on the workings of the cerebral cortex – the part of the brain concerned with higher order thinking, has shown that emotional responses are an integral part of the highest order of thinking, and can be every bit as complex, thoughtful, and reflective as any other cognitive process ... Emotions are in fact central to rationality – people need them to think clearly, prioritise and plan. (DfES 2007b, 96)

Before moving on to look at the content of the SEAL curriculum in more detail, I turn now to look at precisely why social and emotional skills are seen as strategically useful and how they connect to citizenship training more broadly.

The potential of neuroscience to feed into education policy is perhaps not surprising, particularly given the translation of much of this work into books like Goleman's *Emotional intelligence*, which has an obvious logic for education. Education, Goleman argues, can do much to train children's emotional intelligence:

I can foresee a day when education will routinely include inculcating essential human competencies such as self-awareness, self-control, and empathy, and the arts of listening, resolving conflicts, and cooperation. (1995, xiv)

The refashioning of education as a medium through which the continuous process of self-scrutiny takes place has been possible precisely because of its foundation in neuroscience. These new forms of shaping the self rest on neurochemical management and are intrinsic to the 'task of monitoring, managing, and modulating our capacities that is the life's work of the contemporary biological citizen' (Rose 2007, 223). Neuroscience enlivens the capabilities of education to equip the nation's young people with the skills to manage their emotional lives and become responsible citizens.

Goleman's vision is realised with prescient accuracy in the SEAL programme. The five skill sets outlined above (self-awareness, managing feelings, motivation, empathy and social skills) that form the basis of the SEAL curriculum are taken directly from Goleman's road map towards emotional intelligence. These are Goleman's 'aptitudes for living' (1995, xiii), which, if mastered, produce a subject who will outperform older forms of conduct. What I find particularly interesting in this new account of subjectivity as emotionally skilled is the implications it has for versions of citizenship. Outlining why SEAL is important, the Guidance Booklet claims that SEAL will

produce 'more responsible pupils, who are better citizens and more able to contribute to society' (DfES 2007a, 9).

While neuroscientific research is a clear driving force behind SEAL's rationale, equally important are changing social and economic circumstances. The neoliberal workplace particularly in relation to the service economy, the increasing complexity of social and familial relationships, and recent technological changes are all cited as reasons why affective skills are now in greater demand:

Life's increasingly complex challenges demand social and emotional skills ... The nature of work in complex industrial societies has changed and the growth of service industries and modern technology means that it is now as much about communication and relationships between people as it is about technical developments ... The implications for schools in the creation of future citizens are that supporting pupils in learning social and emotional skills is an important task. (DfES 2007b, 3)

Echoing the observation that late capitalism requires something more from individuals than intelligence in the form of speed, efficiency and knowledge, there is evidence that SEAL is a pragmatic response to demands by employers for young people to leave education with demonstrable emotional competencies. Since Hochschild's (1983) seminal work on how emotions are becoming a currency in and of themselves in corporate culture and service industries, there has been a great deal of work on the role of emotions in work and organisations (e.g. Fineman 1993; Lewis and Simpson 2007; Thrift 2005). Moreover, this is compatible with the desire to produce citizens: citizenship always involves an implicit responsibility to contribute to the economic health of the state. However, it is not only knowledge and technical expertise that are sought after and rewarded in the neoliberal workplace. Modern subjects are expected to know less about things and more about themselves.

Educating emotions: knowing, feeling, governing

In this subsection, I examine three emotional skills that form a central platform of the SEAL curriculum: self-awareness, anger management and impulse control. SEAL is organised around three broad themes – Learning to be together, Keep on learning, and Learning about me – which are distilled from Goleman's five-fold categorisation of social and emotional skills (self-awareness, managing feelings, motivation, empathy and social skills). There is obvious overlap between the themes, but each draws out specific social and emotional skills to help teach broad-based emotional literacy. In this section, I present some lesson plans drawn from the SEAL curriculum guides.

Self-awareness: 'I know and accept what I am feeling'

In this example, I draw on a selection of lesson plans from the third theme in the SEAL curriculum: 'Learning about me'. It is here that students are tutored in the skills required to shape the neurological components of emotional citizenship. The basic premise, taken from Goleman (1995), is that self-awareness is the first and necessary step towards emotional management. In a chapter entitled 'Know thyself', Goleman rearticulates the findings of Salovey and Mayer (1990), who argue that the capacity to shift emotional states rests on initial insight.

Self-awareness has a more powerful effect on strong, aversive feelings: the realisation 'this is anger I'm feeling' offers a greater degree of freedom – not just the option not to act on it, but the added option to try to let go of it. (Goleman 1995, 48)

Building on this, the SEAL curriculum identifies a number of learning outcomes that attempt to foster self-awareness and, as a corollary, emotional management.

A common starting point for SEAL lessons is to ask students to identify their feelings. In a lesson entitled 'Feelings detective – what our bodies tell us', the learning outcome promises that by the end of the lesson students will be able to say,

I know and accept what I am feeling and can label my feelings. I can identify the body sensations that go with the basic emotion. I can work out what I am feeling from what my body is telling me. (DfES 2007d, 1)

An outline of a human body is displayed at the front of the classroom and above it, the teacher writes different emotions, starting with 'anger'. Students are encouraged to think about what happens to the body when anger is felt and locate those feelings on the outline body. The goal is for students to link emotions with somatic responses. They are asked to think about 'How this person's body might feel to them, e.g. fists clenched, shoulders tense, stomach churning or knotted, skin hot and red'; 'What the person might be thinking, e.g. "it's not fair", "why should I?"'; 'How they might look, sound, behave to others, e.g. red, hot, raised voice, shouting, violent actions' (DfES 2007d, 12). In order to practise the skill of self-awareness, students are asked to keep a 'feelings diary' in which they plot the changes in mood over the course of a day and annotate this with notes about what happened to cause the shift in mood. This tendency to somaticise emotions lays the groundwork for new forms of self-management and marks a peculiar shift in the location of control. As Rose argues, 'While our desires, moods, and discontents might previously have been mapped onto a psychological space, they are now mapped upon the body itself' (2007, 188).

While self-awareness is bracketed as a specific skill, it is, more importantly, the foundation of emotional management.

Emotions that simmer beneath the threshold of awareness can have a powerful impact on how we perceive and react ... But once that reaction is brought into awareness – once it registers in the cortex – he [sic] can evaluate things anew, decide to shrug off the feelings ... In this way emotional self-awareness is the building block of the next fundamental of emotional intelligence: being able to shake off a bad mood. (Goleman 1995, 55)

In a lesson entitled 'Shift that mood!' students are told that by the end of the session,

I will understand how health can be affected by emotions and know a range of ways to keep myself well and happy. I can take simple physical actions to help shift difficult feelings. (DfES 2007d, 15)

They are told that while sometimes useful, uncomfortable feelings that persist for too long can become counterproductive. 'The feelings might turn into self-pity, depression, grumpiness or violence' (2007d, 15). In this preliminary lesson in neurological control, students are asked to make a poster 'to show how they might change the uncomfortable feelings into comfortable ones' (2007d, 16). Suggestions include physical activity and dance, positive thinking exercises and relaxation techniques like breathing. Neurochemical awareness itself becomes the skill needed to act on oneself. The behavioural interventions that follow could be carried out as a result of any number of prompts, but the power to manage moods – to take responsibility for neurochemical states – is the responsibility of the newly skilled emotional citizen. This echoes Ryan's (2010) argument that governing young citizens increasingly works on the regulation of their freedom to act. In the context of emotional education, children are being governed through their ability to manage their own emotions.

Anger management: controlling an emotional hijack

While the SEAL documents espouse the therapeutic benefits of understanding feelings, the presentation of anger in student behaviour prompts a very different response. Anger is cast as a dangerous and explosive emotion, and the most consequential both for institutional behaviour and managing a social and economic future. The programmatic response to anger, then, is not understanding but eradication. Gillies (2011) has shown how this lockdown on anger fails to account for the contradictions and ambivalence that run through young people's emotional responses to fear, violence and social injustice. I am interested here, however, in the way neurological techniques are being marshalled in the pursuit of emotional control.

Following the steady individualisation of emotions that is prevalent in emotional education (Illouz 2008), the SEAL programme invests considerable faith in the ability of students to actively control their emotions. In a series of lessons designed to explain what happens when anger takes over, students are guided through exercises in anger management. First, however, they are instructed in the brain science behind an 'emotional hijack'. The learning outcomes for the lesson entitled 'What happens to our brains when we "lose it"' state that by the end of the lesson students can claim that: 'I understand some basic principles about how my mind works, and why my emotions sometimes take over and get out of control' (DfES 2007d, 22). The lesson explains basic brain anatomy, describing the three main parts of the brain and their primary function under normal circumstances and continues on to describe what happens when we are confronted with something threatening. Drawing on recent neurology, which identifies the amygdala as the emotional control centre, the lesson's resource notes state that when faced with a threatening situation:

The amygdala sends signals straight to the reptilian brain to make us react ... It also floods the body with stress chemicals that cause an instant and strong feeling which we usually interpret as anger or fear. We react like this before we are even conscious of it ... The whole reaction is called an 'emotional hijack' because, like a plane hijack, it is as if someone else has suddenly taken over the controls. When we have this emotional hijack the neocortex (the clever thinking part of our brain) is shut down and the oldest part of our brain, the reptilian brain, takes over. This is called 'emotional downshifting'. (DfES 2007f, 9)

The 'notes' go on to explain that, while this downshifting may have been useful to our ancestors who needed to respond without time-consuming consciousness, it is less useful in advanced economies. Under a neural hijack we are liable to 'feel confused, and say and do inappropriate, hurtful, harmful or even violent things' (DfES 2007f, 9). This process is used to account for many regrettable acts from violent crime to petty insults, and for the SEAL curriculum represents a basic hindrance to civic cooperation.

Learning about neural hijacks culminates in a lesson entitled 'Six second chills'. In this, students are told that they will leave with

a range of strategies for managing impulses and strong emotions so they do not lead me to behave in ways that would have negative consequences for me or for other people. (DfES 2007d, 25)

The lesson begins with a series of situation cards, which describe events that might trigger an angry response: 'Your sister laughed at you and called you thick', 'Your parent or carer has shouted at you for not tidying your room', 'You were just about to score a goal and the

whistle for half-time is blown' (DfES 2007c, 12). The teacher reminds the class what happens during an emotional hijack and explains some strategies for calming down while your body regains control.

The chemicals that flood the body after an emotional hijack begin to go away after six seconds, which allows time for the neocortex (the clever thinking part of the brain) to get to work. So when upset it is vital not to react straight away – allow at least six seconds. (DfES 2007d, 25)

Students are asked to come up with their own 'calming down tricks'. The lesson guidelines suggest some ideas: 'thinking calm thoughts, or speak them aloud quietly to self', 'visualising, e.g. ring of protection around self, taking self to happy place', or 'deep, steady breathing'.

Beyond the 'Six second chill', students are then guided towards 'the bigger chill'. They are told that while the six-second chill is useful for an immediate response to a threatening trigger, for 'major stresses or to get rid of feelings that have gone on for longer, we need more substantial techniques to calm down' (DfES 2007d, 27). The techniques meted out in this lesson plan include breathing, relaxing and visualising.

When we are tense we tend to breathe more shallowly. One of the quickest ways to help the body relax is to breathe slowly and deeply. (DfES 2007c, 13)

Students are then asked to practise the following:

Sit up straight on your chair, with your back supported, your feet flat on the floor and your hands relaxed in your lap. Shut your eyes ... Start breathing deeply and slowly, ideally through your nose, for a count of seven. Optional addition – as you breathe in say to yourself 'So'. Hold your breath and count to seven again. Breathe out slowly through your mouth, counting to seven once more. Optional addition – as you breathe out say to yourself 'Hum'. Keep breathing in this way for as long as you feel comfortable. (DfES 2007c, 13)

While education has for at least the last century focused on strategies of corporeal control, it has not self-consciously developed strategies that focus on emotional self-management, predicated so explicitly on a neurological rationale. In linking this educational goal with citizenship training, I argue that the SEAL lessons share common ground with the broader shift towards vital politics outlined by Rose (2007). With regard to the management of health in neurochemical terms, Rose argues that citizens are now required to engage in constant vigilance with regard to their psychic and neurochemical condition:

the active and responsible citizen must engage in a constant monitoring of health, a constant work of modulation, adjustment, improvement in response to the changing requirements of the practices of his or her mode of everyday life. (2007, 223)

By skilling young people in emotional self-management, the SEAL curriculum contributes to this revised vision of biopolitical control.

Training the 'master aptitude': impulse control and the greater social good

There is perhaps no psychological skill more fundamental than resisting impulse. It is the root of all emotional self-control, since all emotions, by their very nature, lead to one or another impulse to act. (Goleman 1995, 81)

While self-awareness and anger management are central tenets of SEAL, impulse control stands out as a 'master aptitude', both indicative of deeper emotional refinement and responsive to tuition in youth (Goleman 1995). It is a skill developed in the SEAL curriculum in a lesson entitled 'I just can't wait', designed for year 9 students (DfES 2007e, 6). Here, students are told that they will learn to 'delay short term gratification and understand how this delay may be beneficial for me in the longer term' (DfES 2007e, 6). The lesson is about resisting impulses and the art of delayed gratification, while at the same time building on established techniques in self-awareness, in that students have to identify the impulsive drive in themselves before they can learn to manage their response.

The lesson itself is built around the now infamous marshmallow experiment first carried out in the 1960s by Stanford psychologist Walter Mischel. In the original experiment, a group of four-year-olds were given the option of receiving one marshmallow immediately or waiting 20 minutes and then receiving two. The simple experiment was designed to test self-control and delayed gratification. The experiment had longitudinal reach, observing the group through adolescence and culminating in a study of their high-school graduation achievements. The group who staved off impulse to receive their two marshmallows outperformed the impulsive group both in tests of social and emotional aptitude through adolescence (tested in terms of resilience to stress, self-confidence, trustworthiness, organisational skills) and in terms of traditional markers of intellectual achievement in SAT scores (Goleman 1995). While the original experiment was carried out to observe and understand the role of impulse in emotional self-regulation, it is used in the SEAL curriculum both to build self-awareness and train better impulse regulation.

In a lesson entitled 'I just can't wait', students are presented with a marshmallow as in the original experiment and told that if they can leave the marshmallow uneaten until the end of the lesson they will receive a second. During the lesson, students are asked to think about what their own impulses feel like and where, for example, the somatic location of desire rests. They are asked to practise distraction techniques that

will diffuse their strong impulses. In this sense, the lesson is less in keeping with the original experiment, which simply observed impulse responses under laboratory conditions, and more akin to a training session whereby the experiment is used as a vehicle to teach impulse-control techniques. Students are reminded of earlier techniques in relaxation, visualisation and breathing that could be marshalled here to support impulse control. At the end of the lesson, students are asked to apply their learning to a medium-term goal, like not snacking between meals, or completing homework before they watch television or going out to play.

The elevation of impulse control to a technology of conduct with ambitions beyond the individual marks the importance of emotional education as a strategy of governance. While SEAL's emphasis on citizenship immediately marks out a spatial imaginary beyond the individual, and towards the nation, recent events demonstrate the powerful reach of emotional education in imagining a social future. In March 2012, the Riots Communities and Victims Panel (RCVP) published their report into the riots that spread through UK cities in the summer of 2011. Among the findings the report states that young people appeared to lack fundamental skills in impulse control that might have otherwise prevented them from rioting and looting. Throughout the report there are numerous references to impulse control as a key component of the otherwise amorphous concept of 'character'. Good character has impulse control, weak character does not:

We know that behaviours associated with strong character, such as the ability to defer gratification, can be observed at a young age. Children who demonstrate these behaviours are more likely to succeed in later life stages. (RCVP 2012, 50)

However, when it comes to those involved in the riots, the report claims that they shared a common failure to evidence important attributes, including

self-discipline, application, the ability to defer gratification, and resilience in recovering from set-backs ... It is evident that rioters chose not to resist the temptation and excitement that the riots offered. (RCVP 2012, 49)

In SEAL, and more malignly, in the RCVP report, good citizens are increasingly defined and valued for their aptitude in managing their emotional selves. In order to be a good citizen, young people must learn to manage neurological impulses so they can respond in more measured and productive ways. While various forms of psychological rationalities have shaped the formation of citizen subjectivities up to the late twentieth century, I argue here that since the mid 1990s, a new emotional paradigm has shifted the way modern subjectivity is psychologised. Following Rose (2007), I argue that the somaticisation of selfhood that is the logical corollary of recent neuroscience is having

a discernable impact on the way we envision citizenship education. It is no longer enough that subjects are autonomous and free – qualities that relied fundamentally on a rational will – they must now be understood as neurological subjects, governed and governable according to their emotional intelligence.

Conclusions

Schooling has always been about technologies of conduct. Geographers interested in childhood and education have gone some way towards tracing the construction of subjectivities in schools, be that through curricula, school design, peer or student–teacher relations (Holloway *et al.* 2010). My aim here has been to demonstrate that the emotional education agenda represents a significant shift in the way conduct and citizenship are configured. The recent SEAL programme is only one example of the way neuroscientific thinking is affecting the way subjectivity is governed. As Jones *et al.* (2011) demonstrate, the emphasis on behaviour change models of governing, from behavioural economics to health agendas, pose important political and ethical questions for geographers interested in the everyday workings of the state. The privileging of neuroscience as a technology of change in such models requires close critical attention as they increasingly insinuate themselves in the sites and spaces that have traditionally played a pivotal role in shaping conduct.

I have demonstrated in this paper that emotional conduct has become central to the practice of governance. Moreover, as brain chemistry is identified as a material site on which practices of education can intervene, the role of schools in governing conduct has renewed importance. While schools have always been central to governance, the recent enchantment with emotional health suggests that traditional disciplinary strategies that target minds and bodies as discrete entities have been replaced by an emotional education curriculum in which subjectivity itself is constituted by neurological processes. Emotional qualities such as self-awareness, anger management and impulse control are being structured into the required behaviour of young people, particularly in the practice of citizenship. The implications for both education and the government of young people more generally are significant. Young people are increasingly judged according to their ability to navigate an emotionally charged world with insight, neurological composure and self-regulation. Indeed, as the RCVP report demonstrates, emotional skills have become the new criteria by which young people are deemed to be succeeding or failing as citizens. If changes to curricula continue, an emotional audit will take place at the end of each year to assess students' emotional skills according to a standardised

set of criteria (RCVP 2012). Many of SEAL's detractors worry that the fixation on emotional competence will create a divisive new social order wherein an emotional elite overrun an emotional underclass (Ecclestone 2007). While the riot report does little to allay such fears, I suggest that as geographers we need to consider the ethical implications of the increasing encroachment of neuroscientific principles into the everyday spaces of childhood and youth.

Neuroscience is transforming the criteria by which we know and attempt to improve individuals. To fully understand the geographical implications of the neural turn, we need to understand the material sites in which this is happening. By tracing the transposition of ideas from popular neuroscience to education policy, and finally to the curricula delivered via SEAL, I have shown that schools are one of many sites in which emotions are being targeted as a new technology of governance. This retooling of governance has profound implications for the way young people are prepared for citizenship and suggests that further work is needed to unpick the material effects of the neural turn.

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Notes

- 1 SEAL was initiated under Labour's Department for Education and Skills (DfES), but later implemented under the Department for Children, Schools and Families (DCSF) created in 2007. This was then renamed the Department for Education under the new coalition Government in 2010.
- 2 Goleman's book was published in 1995; however, much of the consolidated work of LeDoux and Damasio appears at a later date. Despite the seeming anachronism, their key findings were already in print in 1995, published in scientific journals. Their work was gaining considerable ground in the mid 1990s, but has been developed more fully since then and has received much wider press.

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